# The Genus Climacteris (Tree-creepers)

## By F. E. HOWE, C.M.Z.S., R.A.O.U., Canterbury, Victoria.

Tree-creepers of the interesting genus *Climacteris* are distributed throughout Australia, and are related to the Creepers of Europe. They are about six inches in length, and have powerful feet, a short square tail, a slightly down-curved bill, and a fawn-coloured band across the wing. In the dry inland portions of Victoria two species, the White-browed and Brown, may be found, while in south-east Victoria the White-throated, the Red-browed and Brown species may occur.

Mr. Gregory M. Mathews splits these Tree-creepers into three genera, Climacteris (two species) Neoclima (one species), and Whitlocka (three species), and in the Austral Avian Record, vol. i., part 5, gives his reasons, which, to me, appear slender indeed. In Whitlocka, both melanura and melanota are black, while *rufa* is a rich chestnut-red, as the name indicates. If these "smaller groups" receive generic distinction because they are compassed by colour, he should have gone further and created another genus, with  $\hat{C}$ , rufa as type. If, on the other hand, Mr. Mathews means colour-pattern, surely the broad band on the wings, to say nothing of the strange gular patches of most or all the females, and the structure generally-particularly the tarsus-is sufficient to denote affinity. Again, ornithologists who have observed it in the open agree that C. rufa is more closely allied to C. picumna, and, indeed, is its western representative. When more intensive studies are made, I am of opinion that structural differences will prove slight. As a field ornithologist, I prefer keeping these small groups under the old generic name-*Climacteris.* I also prefer to record sub-species with a trinomial name.

I here take the opportunity of thanking Mr. J. A. Kershaw, F.E.S., Curator of the National Museum, Melbourne, for placing the skins of *Climacteris* belonging to that institution at my disposal. Also to Messrs, J. A. Ross and Edwin Ashby for the loan of skins.

For technical descriptions, with the exception of that of C. *melanota*, see "Nests and Eggs of Birds," by A. J. North. It is remarkable that Mr. North omitted this well-defined species from his monumental work; the description should be seen in Gould's Handbook. For forms more recently discovered, and for field-notes, the pages of *The Emu* and other journals have been well scanned.

**Climacteris leucophæa.** White-throated Tree-Creeper. range.—Queensland, New South Wales, Victoria, and South Australia. Type locality, New South Wales. Frequents forest Vol. XXI. 1921

country, especially mountainous localities, but is occasionally seen in the box timber at Parwan, Victoria. The nest is made of bark, hair and fur in a hollow of a tree, generally twenty or thirty feet up.

Eggs—clutch, two or three; roundish in form; texture fine; surface slightly glossy; colour white, sparingly blotched about the apex with reddish-brown and purplish-brown; other specimens more finely speckled, chiefly about the same region, with rich or dark brown, also dull purple (Campbell). Dimensions in inches are: (1) .67 x .44, (2) .66 x .44, (3) .68 x .44. Another set: (a) .66 x .44, (b) .67 x .44, (c) .67 x .44. These dimensions are remarkably uniform, only varying a little in length.

Mr. C. F. Belcher in "The Birds of the District of Geelong, Australia," described the call-notes as a "succession of perhaps twenty or thirty staccato notes in quick suc-cession usually preceded by a somewhat higher one." The call is somewhat hard to locate and the bird is, too, difficult to find as it harmonises well with the bark of the forest trees. It is more slender and creeper-like than any of its congeners. It is practically totally arboreal and the only occasions I have noted of its alighting on the ground were at Selby during August, 1914, and again there in August, 1920. In the first case, a male was eating a saturated bread crust. The food consists of beetles and ants, chiefly the latter. At Selby, a log was covered with dark red brown ants and a bird in company with two Red-browed Tree-creepers practically cleaned up the lot. My first nest was at Ringwood in September, 1907, when two eggs were found on a matting of bark and fur about a foot down a hollow twelve feet up. A full set of three eggs was discovered thirty feet up, and about one hundred paces away another nest was found on October 26th. Another nest contained young birds. On September 6th, 1920, nearly seven years later, Mr. J. A. Ross found three fresh eggs in the hollow of our first find. At Selby on October 17th, 1915, a nest contained two fresh eggs. All these nests were close to creeks.

Both parents feed the young. The visits to the nest are frequent, fifteen being noted in as many minutes. Often a bird returned before the other had left and the bird inside would take the food from the waiting bird and return with it to the young. The birds brought out any excreta as did the Red-browed species. When building they approached the nest in the same manner —alighting a short distance below the hollow, remaining stationary a few seconds with the head back, and then creeping quickly up and disappearing rapidly within. The lowest nest found was fifteen inches from the ground and the highest seventy feet up. From this nest a young bird, nearly fully fledged, flew. It showed the rich chestnut rump of the immature which Gould wrongly described as a separate species—*C. pyrhonota.* In referring to this red rump patch, Capt. S. A. White, in *The Emu*,

vol. xiv., p. 142, says, "It seems certain that the immature of this (female) sex alone develop the bright rufous colouring on the rump and upper tail coverts." On October 31st, 1920, a nest contained two young birds about ten days old. One had the orange cheek-patch and bright red rump. The other was minus the cheek-patch and the grey rump was slightly washed with rufous. Traces of the rufous rump and upper tail-coverts may be found more or less in birds otherwise in adult plumage. In the "H. L. White Collection" is a young male with the rump grey, head blackish, legs slate and the bill dark horn; the throat is fawn, getting gradually darker until it is grey on the breast and slightly rufous on the abdomen. Three breast feathers show the white central stripe and only a trace of the markings on the crown is discernible. This bird, collected at Selby on December 28th, 1917, was probably two or three months old. At Bays-water on December 11th, 1920, a nest contained four young birds about a fortnight old, and all had a bright rufous rump. Some good notes on the immature bird by Mr. J. W. Mellor appear in The Emu, vol. xiv., p. 158. Mr. A. C. Smart observed the female fed on the nest by her mate ("Nests and Eggs," Campbell). The breeding season in Victoria extends from August to January, and two broods are reared. This species is a foster parent of the Pallid Cuckoo.

After examining many skins, I see no reason for retaining Mr. Mathews' South Australian form, C. l. grisescens. It is identical with skins from the Dandenong Ranges, Victoria. One is struck by the smaller size and slender appearance, the greyish throat, and the beautiful freckled chest and abdomen of the northerm form (C. minor). A skin in the collection of Mr. Edwin Ashby is undoubtedly referable to C. minor, but it was collected at Bulli, New South Wales. Unless the specimen was wrongly labelled, this is very far south for the bird, as its habitat is towards Cape York, North Queensland, the type being collected near Cardwell.

**Climacteris erythrops.** The Red-browed Tree-creeper.— Range.—New South Wales and Victoria. Type locality, Liverpool Range, New South Wales. This species frequents the big timber of hilly districts. The nest is a layer of reddish-coloured bark, covered by another of fur, and placed in a hollow from 20 to 100 feet up. Eggs—clutch two; delicate pinkish-white thickly spotted all over with fine red and purplish-red markings, sometimes forming a zone. Texture of shell fine and somewhat glossy. Dimensions in inches: (a) .74 x .46, (b) .68 x .47; another set was: (1) .68 x .46, (2) .64 x .45. Gould "obtained this interesting species while camped on the low, grassy hills under the Liverpool Range in New South Wales." He remarked: The female alone is "adorned with the beautiful radiated markings on the throat, the male having this part quite plain." Vol. XXI.]

Mr. L. G. Chandler first observed a Red-browed Tree-creeper\* at Olinda in 1909. I also met this agile and beautiful form in the Dandenongs, from Ferntree Gully towards Gembrook, and have little doubt that it extends through the eastern and northeastern portion of Victoria. It is far from rare, and half-a-dozen birds may be seen together, generally in the non-breeding months. In Victoria, the habitat is the hilly country where messmate, blackwood, mountain-ash and white gums abound. When half creeping and fluttering up the long hanging strips of bark of the two latter trees, the bird is seen to advantage while it examines a tree very thoroughly, often working each limb to the extremity. It rests in an upright position on the side of a tree, and I believe these Tree-creepers roost in a like position in the burnt-out hollows at the base of large trees. The call-notes are a harsh, high-pitched medley, not unlike those of the Striated Grass-Wren (Diaphorillas striata) when disturbed from a bunch of porcupine grass; other notes are silvery and tremulous, and it also utters the familiar high-pitched staccato notes of the White throated Tree-creeper, but sweeter and not so sustained.

The bird is arboreal, and may feed on ants on fallen dead trees in company with its White-throated cousin. The flight, rapid and undulating, also resembles that of the White-throated bird. The birds are silent at times, and hours may be spent in their feeding grounds without catching a note. The first intimation that they are about is, perhaps, a few high-pitched, harsh notes, often difficult to locate, or else, after a lightning-like streak, a bird alights on a tree trunk, and, as its back is turned towards one, it has then to be ascertained whether it is C. erythrops or not. In this country of dense undergrowth, it is difficult to follow the birds. However, they are strictly local. Two pairs I know can always be located in about twenty acres of dense scrub and big timber. On September 13th, 1914, at Selby, where I had located a few of the elusive "Red-brows," I at length caught the familiar high-pitched call. To observe more conveniently, I leaned against a small dead messmate, and immediately a female joined her mate and was fed by him. This was encouraging, and I followed the birds until I lost them up the hillside. Returning to the tree, I was surprised to see a bird leave it. She alighted on the side of a tree, and preened her feathers. Close examination showed a small crack about twenty feet up. The nest contained two eggs, and was a pad of stringy-bark, warmly lined with the fur of rabbit, hare and possum. On October 10th, 1915, a female alighted on the side of a big messmate with a bill full of fur from a dead flying squirrel. A week later the nest contained two well-marked eggs. Close by a bird was flushed from another hollow containing two eggs of the White-throated. The discovery of the eggs of two species of Tree-creepers on one day is a rare occurrence.

<sup>\* &</sup>quot;The Emu" Vol. IX., pp. 28 and 84.

On October 31st, 1915, another nest of the White-throated contained a young bird nearly fully fledged, and from this nest two Red-browed birds were busily removing the lining to a spout about ninety feet up in a tall white gum. This hollow, well out of reach, was used for at least three successive seasons. On November 10th, 1918, a nesting hole, about fifty feet up contained two eggs, quite unlike those observed previously, being smaller, more glossy, and not unlike a certain type of the eggs of the Yellow-faced Honey-eater (*Meliphaga chrysops*). The mark-ings were brighter and coalesced on the larger end. These birds again nested in a hollow spout about one hundred vards away, and on December 10th the nest contained two incubated eggs. Three weeks later, the same birds had another pair of eggs. The breeding season extends from August to January, and two broods are reared. The superciliary stripe is never white in either sex, as in the male of the White-browed Tree-creeper (C. superciliosa). The Red-browed bird is also more robust in form.

**Climacteris superciliosa.** The White-browed Tree-creeper.— Range.—Central Australia. Type locality, Ilara Creek, Central Australia. Embracing the inland and drier tracts of all the States, particularly those localities favouring a growth of pine, belar (*Casuarina*), and mulga (*.lcacia*). The bird is practically totally arboreal. The nesting site is a hollow generally fairly close to the ground. The nest is a pad of grass and bark, lined with fur and vegetable down. The eggs are roundish, texture of shell fine, surface glossy, colour pinkish-white mottled with pinkish-red and purplish-red. Dimensions in inches: (1) .78 x .65, (2) .74 x .64 (Campbell).

I shall not readily forget my first glimpse of this fine bird at Walpeup, in the Mallee of North-Western Victoria, during September, 1910. The timber was mostly belar, sandalwood, myall, needlewood, with here and there large mallee. Whilst watching a Red-capped Robin feeding his mate, a bird with a lightning-like flight alighted on the trunk of a fallen pine. It was a Tree-creeper new to me. The conspicuously white eyebrow hinted its identity. We sought the nest after losing sight of the bird, but, being unfamiliar with the calls, we could not again find it. My next meeting with this bird was at Linga, 25 miles farther west. During September, 1916, a male Whitebrowed Tree-creeper alighted on a Murray pine. In September, 1917, the birds were located at Boinka, a few miles west of Linga. They were feeding with the Little Tit-Warbler (Acanthiza nana) and the Brown Tree-creeper (Climacteris picumna), the latter appearing to differ slightly from the form found near Melbourne. The White-browed Tree-creeper reminded me of its Red-browed cousin, but was less rapid in its movements. The call-notes resembled those of the White-throated species, both in the loud staccato call and in the sweet, low, tremulous notes. Mr. Mathews, in his "List of the Birds of Australia," included

C. e. neositta from West Australia. I consider skins from Central Australia and Western Australia cannot be separated from the dominant form. Mr. Edwin Ashby\* collected two birds at Pungonda, South Australia, and Mr. J. W. Mellor secured specimens in the Hundred of Bookpurnong, South Australia. These he named C. e. parsoni.<sup>+</sup> Pungonda and Bookpurnong are near the Victorian border, and the bird is identical with that of North-west Victoria. C. e. parsoni being a larger and more robust bird, is easily separated from C. e. superciliosa. The superciliary stripe is snowy-white in C. e. parsoni, and so are the white shaft-lines of the breast and abdomen feathers, which are bordered by black. C. e. superciliosa is a more dingy-brown on throat and abdomen, and the shaft-lines of breast and abdomen are bordered by brown. Altogether the southern bird has a much finer appearance. The females of the White-browed Tree-creeper show a trace of the red radiated markings that adorn the breast of the females of the Red-browed bird. Mr. Mathews lists C. superciliosa as a sub-species of C. crythrops. Possibly he is correct, but, in the field, the birds are very distinct, and I prefer keeping them apart. Dr. Chenery found a nest containing a fresh egg on August 4th, 1900, and another single egg incubating on the 12th at Mount Gunson, South Australia. On March 1st, 1895, Mr. C. E. Cowle, in Central Australia, found a nest containing a single egg. Probably August to December or January would be the general breeding months, and no doubt two broods are reared. Interesting fieldnotes regarding its nidification appear in The Emu, vol. ix., p. 208, and vol. x., pp. 95-96.

**Climacteris picumna.** The Brown Tree-creeper.—Range.— Queensland, New South Wales, Victoria, and South Australia. Type locality, South Queensland. Frequents the more open parts, particularly box trees plains. The nesting site is a hollow lined with grasses, feathers and fur, fairly close to the ground. Eggs.—A fine set of four from Pine Plains, North-west Victoria measure, in inches: (a) .74 x .5, (b) .72 x .49, (c) .71 x .5, (d) .69 x .5. They are close-grained, smooth and lustrous, and of a reddish-white ground colour, almost obscured with markings of different shades of red and purplish-red. The spots are larger and more numerous on the thicker end, and with underlying spots of dull violet-grey forming confluent patches. Another set measure: (1) .66 x .5, (2) .68 x .51, (3) .64 x .5.

The loud "pink-pink" familiar on the box plains at Parwan, thirty miles west of Melbourne, is pleasing to the ear. On an autumn evening there is a touch of sadness in the cry. Broadbent records this species from the Cardwell scrubs of Northern Queensland; but this is probably an error, and the bird would be referable to *C. melamura*, the under parts being

<sup>\* &</sup>quot;The Emu " Vol. XVII., p. 219.

<sup>†</sup> South Australian Ornithologist, p. 5, 1919.

not unlike those of C. picumna. The Brown Tree-creeper is named from its brownish plumage. Its flight is of a more "rolling" character than that of other Tree-creepers, and often the bird, after a few fairly rapid wing-beats, sails along after the fashion of a Babbler (Pomatostomus). When the wing is expanded the broad buff band is conspicuous. This species spends much time on the ground. It is seen to advantage when ascending the trunk spirally and prying into every hole and crack, both on the upper and under surface of the limbs; if it misses a likely-looking spot, it shuffles backward and downward. I have seen the bird break up the decaying wood in short spouts with its powerful bill. At Parwan, birds hopping about the ground turn over leaves and bark. I have seen a bird capture a large spider (l'oconia), take moths on the wing, and feed at the edge of a water-hole. When the bird alights on a treetrunk, the head is usually back, and the feathers of the crown are slightly erected, giving it a grotesque appearance. The familiar notes are then uttered, but, when flying or on the ground it utters harsh, grating, chattering notes. I have observed nests at Stawell, Linga, and Kow Plains. Breeding season in Victoria is from August to January, and the bird is double-brooded. In a series of skins from Queensland to South Australia, the only difference detected is that the dark lines bordering the chest and abdomen feathers are narrower on inland birds. The birds inhabiting coastal regions are perhaps a little more robust in form. The type came from Queensland, and Mr. Mathews named the Victorian and South Australian birds Neoclima picumna victoriæ and N. p. australis respectively.

**Climacteris melanura.** The Black-tailed Tree-creeper.— Type locality, Derby, North-west Australia. Range.—Northwest and Mid-west Australia, Northern Territory, and North Queensland (Gulf Country). Generally found in open forest country and numerous on the "river flats" of the Leichardt." Nest—Built of grasses, feathers, etc., in a hollow. Eggs—Clutch, two to three; round in form; texture of shell fine; surface slightly glossy; colour, pinkish-white, marked all over, but thickest in the form of a patch round the apex, with rich purplish-red and purple. Dimensions in inches: (A) .92 x .7. (B) .88 x .74 (Campbell).

This is the largest and finest of the genus, differing from all and particularly from its nearest ally the Black Tree-creeper (*C. mclanota*) in having lanceolated markings on the throat. Mathews says: "These birds feed on small ants, catching them on the trees," and Mr. Harry Barnard found the stomach to contain small black beetles, bark moths, and other small insects. Dr. MacGillivray says: "The bird is a spring-breeder," and both Messrs. H. Barnard and W. M'Lennan found the birds breeding in the Gulf Country. The nests were in hollows from 12 feet

<sup>\*</sup> MacGillivray "The Emu" Vol. XIII, p. 175.

Vol. XXI. 1921

to 30 feet up. Mr. Barnard found the birds generally in pairs on the coastal rivers of Northern Territory, where the nests each contained two eggs. Grant\* described a bird from Clifton Downs, West Australia, as a new species, Climacteris wellsi; it seems to be referable to Mathew's Whitlocka melanura wellsi, a good sub-species. The skins in the H. L. White Collection are much smaller than the dominant form, and are more rufous on the breast and abdomen in both sexes. A juvenile skin is without the radiated breast-markings, merely showing a trace of the gular striations at the base of the bill. Mr. Mathews has named a bird from Northern Territory and North Oueensland (Gulf of Carpentaria), IV. m. alexandrae. The male differs from the dominant form in having the radiated breast markings extending practically right down the abdomen, but the greatest difference is in the females. The gular patch of II'. m. melanura is snowy-white, as are also the centres of the breast feathers with their bright red edges, but in IV. m. alexandrae the throat and upper breast are a dingy or grevish-white, as are also the centres of the breast feathers. The ear coverts of W. m. alexandrae are brownish-black with white shaft stripes, but in W. m. melanura the ear-covert striations are of buff.

**Climacteris melanota.** The Black Tree-Creeper.—Range.— Queensland. Type locality.—Nassau River (Gulf of Carpentaria). Frequents open forest country, particularly near watercourses. Nest and Eggs.—Undescribed. The Black Tree-creeper was procured in Latitude 15° 57′ south, on the eastern side of the Gulf of Carpentaria, during Dr. Leichardt's expedition from Moreton Bay to Port Essington. It was one of the birds procured by poor Gilbert on the day of his death, June 28th, 1845. Practically nothing has been added to its life history since Gilbert discovered it, and of its nidification we are ignorant.

Mr. F. L. Berney, of the Richmond district of North Queensland, remarked that "The loud 'spink-spink' of the *Climacteris* is to be heard fairly frequently among the river timber . . ." "This species has a peculiar cheesy or mouse-trap smell; it is most curious, and strikes one as soon as the bird is handled." Messrs. A. J. Campbell and H. G. Barnard observed specimens on the Kirrama tableland.

Dr. MacGillivray saw the birds "in scattered pairs in the forest on the Archer River." Mr. Gregory Mathews† recorded a sub-species as *Whitlocka melanotus barroni*. "It differs from *W. m. melanotus* in its larger size, wing 96 m.m.: birds from Normanton have a wing-measurement of 85-90 m.m." The female differs from the dominant form in being greyer on the under-surface. In the "H. L. White Collection," there are skins

<sup>\* &#</sup>x27;' Ibis '' 1909, p. 664.

<sup>†</sup> Austral Avian Record, Vol. II., p. 131.

of three males. Two of these, collected on the Kirrama Tableland, near Cardwell, are much lighter on the back than the bird from the Watson River, North Queensland.

The Rufous Tree-creeper.-Range.-Climacteris rufa. Southern portions of West and South Australia. Type locality, Swan River, West Australia. Frequenting country overgrown with Acacia, Salmon-barked and York Gum, Jarrah and Mallee. Nest.-Very warm, of soft grasses, the down of flowers and feathers; placed low down in a hollow, generally close to the ground. Eggs .- Clutch, three; roundish in form; texture of shell fine; surface slightly grossy; colour, light purplish-buff, clouded chiefly with dull or light purple and a few heavier spots and blotches of reddish brown; in some examples the reddishbrown markings predominate (Campbell). Dimensions in inches: (a) .78 x .51, (b) .68 x .51. As Gould pointed out, this is the western representative of the Brown Tree-creeper (C, C)picumna). Gilbert procured the bird on the Swan River, where it was abundant in gum trees abounding with white ants (Termites). Mr. Milligan saw the birds on the Margaret River, harmonising with the rufous-coloured bark of the jarrah trees, and also with the iron-stone gravel country. He also observed them secure their food by "digging or probing with their bills," as already stated under the Brown Tree-creeper. Mr. Milligan also found the Rufous Tree-creeper plentiful in the Stirling Range and Wongan Hills. Mr. Gerald Hill found the birds common at Brookton, hunting among the dead logs as well as in the trees. He adds: "Has a peculiar cry, which reminded me of that of the Rufous Bristle-Bird (Sphenura broadbenti)." When exploring the Gawler Ranges of South Australia, Captain S. A. White\* discovered the eggs of a bird which Mr. Mathews described as a sub-species-Il hitlocka rufa orientalis. Captain White described the eggs in the Austral Avian Record, vol. i., p. 196. In this eastern race the markings on the fore-neck and chest are much darker and of greater extent than in the western forms, but I cannot find any variation in II'. r. obscura from the dominant species.

**Climacteris waitei.** The Cooper's Creek Tree-creeper.— Range.—"As far as is yet known, the bird is confined to Cooper's Creek, from above Innamincka in the east to Cuttapirie Corner in the west."

I would refer readers to Captain White's description and notes<sup>\*</sup>, and also to the same journal for further notes accompanied by a beautiful plate.<sup>†</sup> I was glad to examine the skin figured in *The Emu*, which, unfortunately was unsexed. The colour scheme points to it as being the closest ally of the Brown Tree-Creeper (*C. picumna*).

<sup>\* &</sup>quot;The Emu" Vol. XIII., pp. 30 and 31.

<sup>† &</sup>quot;The Emu," Vol. XVII., frontispiece.

A subsequent examination of the skin of *Climacteris waitei* leads me to believe that it is an immature male of *C. picumna*. I hope to deal more fully with this later on.

The study of this interesting genus has been a pleasurable task, and if such small groups of birds (a genus) or even an individual are similarly dealt with, the result and information obtained would certainly help to eliminate the straw-splitting to which Australian ornithology has recently been subjected. As already remarked, the most perplexing form is *Climacteris leucophaca minor*, a miniature of the southern White-throated Tree-creeper (*C. leucophaca*). Mr. A. J. Campbell‡ remarks "that the difference appears more specific than sub-specific," and states the differences and measurements of both.

After an exhaustive examination of the available material, I append a list of the species and sub-species I would admit.

GENUS CLIMACTERIS, TEMMINCK 1820.

#### The White-throated Tree-creeper.

Climacteris leucophæa leucophæa. Latham, 1801. """"minor. Ramsay, 1891.

## The Red-browed Tree-creeper.

Climacteris erythrops. Gould, 1841.

#### The White-browed Tree-creeper.

Climacteris superciliosa superciliosa. North, 1895. """parsoni. Mellor.

#### The Brown Tree-creeper.

Climacteris picumna. Temminck and Laugier, 1824.

#### The Cooper's Creek Tree-creeper.

Climacteris waitei. S. A. White, 1917.

# The Black-tailed Tree-creeper.

Climacteris melanura melanura. Gould, 1842. ,, wellsi. Grant, 1909. ,, alexandrae. Mathews, 1912.

### The Black Tree-creeper.

Climacteris melanota melanota. Gould, 1846.

#### The Rufous Tree-creeper.

Climacteris rufa rufa. Gould, 1840. ,, ,, orientalis. Mathews, 1912.

‡ "The Emu" Vol. XVII., p. 29.